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Comparison of three wheelchair cushions for effectiveness of pressure relief.

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**OBJECTIVE:** Previous studies have suggested that no single wheelchair pressure-relieving cushion material was optimal for all persons with spinal cord injury (SCI). The purpose of this study was to compare the effectiveness of the short-term pressure-relieving ability of the three most commonly prescribed wheelchair cushions (Roho, Jay, Pindot) for a person with SCI.

**METHOD:** The number of pressure sensors registering at the buttock-cushion interface during wheelchair sitting was measured by the Xsensor Pressure Mapping System after 5 min of sitting. An alternating treatments research design, with an initial baseline and a final treatment phase ending with the most effective cushion for relieving pressure, was used for the clinical evaluation. Measurements were compared using visual inspection and a Wilcoxon signed ranks test.

**RESULTS:** Data analyses indicated that the number of pressure sensors that registered potential harmful levels of pressure at the buttock-cushion interface for the Roho cushion was significantly less than those of the Jay and Pindot cushions.

**CONCLUSION:** The Roho cushion was more effective in relieving pressure at the seating surface than the Jay and Pindot cushions.